



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0339; Directorate Identifier 2014-NM-025-AD; Amendment 39-18192; AD 2015-13-05]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. This AD was prompted by reports of fatigue cracks found in the upper corners of the forward entry door skin cutout. This AD requires repetitive inspections for cracking in the upper corners of the forward entry door skin cutout, and repair if necessary. Accomplishment of this repair or a preventive modification terminates the repetitive inspections. We are issuing this AD to detect and correct cracking in the doorway upper corners, which could result in cabin depressurization.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707,

MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0339.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0339; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Nenita Odesa, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; telephone: 562-627-5234; fax: 562-627-5210; email: nenita.odesa@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. The NPRM published in the Federal Register on June 11, 2014 (79 FR 33484). The NPRM was prompted by reports of fatigue cracks found in the upper corners of the forward entry door skin cutout. The NPRM

proposed to require repetitive inspections for cracking in the upper corners of the forward entry door skin cutout, and repair if necessary. Accomplishment of this repair or a preventive modification would terminate the repetitive inspections. We are issuing this AD to detect and correct cracking in the doorway upper corners, which could result in cabin depressurization.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (79 FR 33484, June 11, 2014) and the FAA's response to each comment.

Support for the NPRM (79 FR 33484, June 11, 2014)

Boeing stated that it supports the NPRM (79 FR 33484, June 11, 2014).

Request to Clarify Terminating Action

Southwest Airlines (SWA) requested confirmation that paragraph 3.B.4. of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, is an acceptable terminating action for the inspection requirements of paragraph (g)(1) of this NPRM (79 FR 33484, June 11, 2014) for the repaired door corners.

SWA stated that the repairs provided in Part 3 of the Accomplishment Instructions of Boeing Service Bulletin 737-53-1163, dated December 21, 1993, and in Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, contain instructions using the service information figures or using the structural repair manual. SWA stated that there are no provisions in the NPRM (79 FR 33484, June 11, 2014) for repairs installed using FAA Form 8100-9 prior to the issuance of the NPRM. SWA stated that paragraph 3.B.4. of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, states that, "For door corners that have a repair provided by

Boeing and approved via FAA Form 8100-9 installed, the inspection in this service bulletin is not required for the repaired door corner(s).”

We agree that paragraph 3.B.4. of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, is an acceptable terminating action for the inspection requirements of paragraph (g)(1) of this AD. We have added a new paragraph (h)(3) to this AD accordingly.

Request to Change the Compliance Time

SWA requested that the compliance time for paragraph (i) in the proposed AD (79 FR 33484, June 11, 2014) be revised. SWA suggested that the proposed requirement of paragraph (i) of the proposed AD state that the compliance time in table 3 of paragraph 1.E., “Compliance” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, be implemented during the operator's repair assessment program (RAP), provided that the operator's RAP was developed using the “D6-38669, Repair Assessment Guidelines-Model 737-100 to-500,” and approved by the FAA principal maintenance inspector.

SWA stated that the 60,000-total-flight-cycle requirement may not coincide with the operator's implementation of the “D6-38669, Repair Assessment Guidelines-Model 737-100 to -500.” SWA stated that airplanes with existing preventive modifications and repairs that have already surpassed the compliance time in table 3 of 1.E., “Compliance” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, will immediately be rendered out of compliance by paragraph (i) of the proposed AD (79 FR 33484, June 11, 2014) if the table 3 requirement of 1.E., “Compliance” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, does not coincide with the operator's RAP.

We partially agree with the commenter's request. We disagree with the commenter's proposed compliance time because our examination of this issue shows that

the compliance period for the RAP may be too long to address the unsafe condition. However, we agree that some airplanes would be rendered immediately out of compliance, and therefore, a compliance grace period should be added. We have added a grace period of “4,500 flight cycles after the effective date of this AD” to the compliance time in paragraph (i) of this AD.

Request to Provide Conditional Relief from Inspection Requirements

SWA requested that the NPRM (79 FR 33484, June 11, 2014) provide relief from the external detailed inspection in areas that are hidden by an existing non-corner Boeing repair approved using FAA form 8100-9. SWA stated that an external detailed inspection is still required in the area not hidden by the repair.

We agree with the commenter’s request. As we stated previously, we have added a new paragraph (h)(3) to this AD for door corners that have an existing repair installed, as provided by Boeing and approved using FAA Form 8100-9. Under these conditions, the inspection in paragraph (g)(1) of this AD is not required for the repaired door corners.

Request to Revise the Requirements for Post-Modification and Post-Repair Inspections

SWA requested that the post-modification and post-repair inspections specified in table 3 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, not be required in paragraph (i) of the proposed AD (79 FR 33484, June 11, 2014). SWA stated that the post-modification and post-repair inspections are currently mandated under 14 CFR §129.109(b)(2)14 and CFR §121.1109(c)(2).

We partially agree with the commenter’s request. As we stated previously, our examination of this issue shows that the compliance period for the RAP may be too long to address the unsafe condition. However, we agree that these inspections are required under 14 CFR §129.109(b)(2)14 and CFR §121.1109(c)(2). Operators who have already begun inspections of this area using the RAP should not be burdened with an additional

and identical inspection requirement. Therefore, we have redesignated paragraph (i) of the proposed AD (79 FR 33484, June 11, 2014) as paragraph (i)(1) and added new paragraph (i)(2) to this final rule, which states that the inspection requirement in paragraph (i)(1) of this AD does not apply to operators who have added inspections of this area in accordance with 14 CFR §121.1109(c)(2) or §129.109(b)(2) to their FAA-approved maintenance program. These inspections may be used in support of compliance with 14 CFR §121.1109(c)(2) or §129.109(b)(2).

Effect of Winglets on AD

Aviation Partners Boeing stated that accomplishing the supplemental type certificate (STC) ST01219SE does not affect the actions specified in the NPRM (79 FR 33484, June 11, 2014).

We concur with the commenter. We have redesignated paragraph (c) of the NPRM (79 FR 33484, June 11, 2014) as (c)(1) and added new paragraph (c)(2) to this final rule to state that installation of STC ST01219SE ([http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/\\$FILE/ST01219SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/$FILE/ST01219SE.pdf) (http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/%24FILE/ST01219SE.pdf)) does not affect the ability to accomplish the actions required by this final rule. Therefore, for airplanes on which STC ST01219SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the change described previously, and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (79 FR 33484, June 11, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (79 FR 33484, June 11, 2014).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Service Bulletin 737-53A1163, dated December 21, 1993; and Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014. The service information describes repetitive inspections for cracking in the upper corners of the forward entry door skin cutout, and repair if necessary. Accomplishment of this repair or a preventive modification terminates the repetitive inspections. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

Costs of Compliance

We estimate that this AD affects 371 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated Costs: Required Actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	3 work-hours X \$85 per hour = \$255	\$0	\$255	\$94,605

Estimated Costs: Optional Actions

Action	Labor cost	Parts cost	Cost per product
Preventive modification	44 work-hours X \$85 per hour = \$3,740	Up to \$3,912	Up to \$7,652

We estimate the following costs to do any necessary repairs that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these repairs:

On-condition Costs

Action	Labor cost	Parts cost	Cost per product
Repair	60 work-hours X \$85 per hour = \$5,100	Up to \$4,964	Up to \$10,064

We have received no definitive data that would enable us to provide a cost estimate for the post-repair or post-preventive modification inspections specified in this AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2015-13-05 The Boeing Company: Amendment 39-18192; Docket No. FAA-2014-0339; Directorate Identifier 2014-NM-025-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes; certificated in any category; as identified in Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014.

(2) Installation of Supplemental Type Certificate (STC) ST01219SE ([http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/\\$FILE/ST01219SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/$FILE/ST01219SE.pdf) http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/%24FILE/ST01219SE.pdf) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports of fatigue cracks found in the upper corners of the forward entry door skin cutout. We are issuing this AD to detect and correct cracking in the doorway upper corners, which could result in cabin depressurization.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection

(1) For airplanes identified in Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, as Groups 1 and 2, Configuration 2, and Group 3: Before the accumulation of 27,000 total flight cycles, or within 4,500 flight cycles after the effective date of this AD, whichever occurs later, do an external detailed inspection for cracking of the skin assembly, and a low frequency eddy current (LFEC) inspection for cracking of the skin assembly and bear strap, and all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, except as required by paragraph (j) of this AD. Repeat the inspections thereafter at intervals not to exceed 4,500 flight cycles. Do all applicable corrective actions before further flight.

(2) For airplanes identified as Group 4 in Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014: Within 120 days after the effective date of this AD, do inspections of the skin assembly and bear strap and all applicable corrective actions using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

(h) Terminating Actions

(1) Accomplishment of the preventive change specified in Part II of the Accomplishment Instructions of Boeing Service Bulletin 737-53-1163, dated December 21, 1993; or the preventive modification specified in Part 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014; terminates the inspection requirements specified in paragraph (g)(1) of this AD.

(2) Accomplishment of the repair specified in Part III of the Accomplishment Instructions of Boeing Service Bulletin 737-53-1163, dated December 21, 1993; or Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014; terminates the inspection requirements specified in paragraph (g)(1) of this AD.

(3) For door corners that have a repair installed, as provided by Boeing, which inhibits the inspections required by paragraph (g)(1) of this AD, and approved before the effective date of this AD using FAA Form 8100-9, the inspection in paragraph (g)(1) of this AD is not required. Refer to the repair approval for any supplemental inspection of the repair area.

(i) Post-Modification and Post-Repair Inspections

(1) For airplanes identified in Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, as Groups 1 and 2, on which a repair or preventive modification has been installed in accordance with Boeing Service Bulletin 737-53-1163, dated December 21, 1993; or Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014: At the applicable time specified in table 3 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, or within 4,500 flight cycles after the effective date of this AD, whichever occurs later, inspect the fuselage skin assembly, bear strap, and frame and sill outer chords, as applicable, for cracking, in accordance with table 3 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014. Repeat the inspection thereafter at the times specified in table 3 of paragraph 1.E., “Compliance” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014. If any crack is found during any inspection required by this paragraph, repair before further flight using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

(2) The inspection requirement in paragraph (i)(1) of this AD does not apply to operators who have added the inspection program for this area specified in table 3 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, in accordance with 14 CFR §121.1109(c)(2) or §129.109(b)(2) to their FAA-approved maintenance program. These inspections may be used in support of compliance with 14 CFR §121.1109(c)(2) or §129.109(b)(2).

(j) Exception to Service Information Specifications

If any cracking is found during any inspection required by this AD, and Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, specifies to contact Boeing for appropriate action: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

(k) Explanation of Service Information and AD: Repair/Preventative Modification Required

The Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, state that Group 1 and 2, Configuration 1 airplanes on which the repair or preventive modification has been installed as specified in Boeing Service Bulletin 737-53-1163, dated December 21, 1993, are not required to be inspected. However, this AD requires inspections of Group 1 and 2 airplanes, as identified in and in accordance with paragraph (i) of this AD, which correspond with table 3 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014.

(l) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 737-53-1163, dated December 21, 1993.

(m) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (n)(1) of this AD. Information may be emailed to:

9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane and the approval must specifically refer to this AD.

(n) Related Information

(1) For more information about this AD, contact Nenita Odesa, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; telephone: 562-627-5234; fax: 562-627-5210; email: nenita.odesa@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (o)(3) and (o)(4) of this AD.

(o) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Service Bulletin 737-53-1163, dated December 21, 1993.

(ii) Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014.

(3) For Boeing service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>.

(4) You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on June 19, 2015.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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